EUB Alberta Energy and Utilities Board

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Directive 028

Revised edition, July 27, 2007

Applications for Power Plants, Substations, Transmission Lines, and Industrial System Designations

The Alberta Energy and Utilities Board (EUB/Board) has approved this directive on July 27, 2007.

B. T. McManus, Q.C.
Acting Chairman

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List of Abbreviations

ADR – Appropriate Dispute Resolution
AENV – Alberta Environment
AESO – Alberta Electric System Operator
AIES – Alberta Integrated Electric System
ASRD – Alberta Sustainable Resource Development
BA Code – Business Associate Code
DDS – Digital Data Submission
DFO – Distribution Facility Owner
Directive – This new *Directive 028*, which replaces the December 2003 version of *Directive 028*
EAS – Electronic Application Submission
EIA – Environmental impact assessment
EUB – Alberta Energy and Utilities Board
EU Act – Electric Utilities Act
HEE Act – Hydro and Electric Energy Act
ISD – Industrial system designation
Kg/MWh – kilograms per megawatt-hour
kV – kilovolt
kVA – kilovoltampere
kW – kilowatt

kWh – kilowatt-hour
LSD – legal subdivision
MVA – megavoltampere
MW – megawatt
MWh – megawatt-hour
NID – Needs identification document
NIF – Needs information filing
NO_x – nitrogen oxides
The Regulation – Transmission Regulation
SO_2 – sulphur dioxide
TFO – Transmission facility owner

1 How to Use This Directive

1.1 What's New in This Directive

This new *Directive 028* replaces the December 2003 version of *Directive 028*.

Directive 028 (the directive) incorporates the latest requirements and the process to apply to the Alberta Energy and Utilities Board (EUB) for the necessary approvals for the construction or alteration and operation of power plants, substations, transmission lines, and industrial system designations, pursuant to the *Hydro and Electric Energy Act* (*HEE Act*), and Needs Identification Document, pursuant to the *Electric Utilities Act* (*EU Act*) and *Transmission Regulation* AR 86/2007 (the *Regulation*).

Also included in the directive are

- the Needs Information Filing (NIF) process to facilitate expedient processing of need applications,
- new requirements regarding participant involvement program, and
- instructions on how to file applications electronically using the Electronic Application Submission (EAS) System.

As indicated in later sections of this directive, for different types of applications, the level of detail required varies depending on the scope and complexity of your proposed development. Applicants are expected to know and understand requirements and file accurate and complete applications.

If the project involves other nonelectric facilities, you may also be required to submit other applications to the EUB for approval of these facilities. For example, you may need to file an application pursuant to the *Pipeline Act* if the project requires a new gas pipeline, the *Coal Conservation Act* if the project requires extraction of coal, or the *Oil Sands Conservation Act* if the project requires extraction of bitumen.

1.2 Application Required

Anyone intending to construct, connect, operate, or alter electric facilities (i.e., power plants, substations, transmission lines, or industrial system designations) [1] must file an application with the EUB, pursuant to the *HEE Act* and/or the *EU Act* in accordance with this directive.

[1] As defined in Section 1(1) of the *HEE Act*.

Power plant applications should be made pursuant to Section 11 of the *HEE Act*. Substation and (or) transmission line applications should be made pursuant to Sections 14 and 15 of the *HEE Act*. Connection applications for power plant, substations, and transmission lines, should be made pursuant to Section 18 of the *HEE Act*.

In order for the EUB to consider a new application by a Transmission Facility Owner (TFO) or Market Participant, the Alberta Electric System Operator (AESO) is required to have prior EUB approval for the Needs Identification Document (either prepared by AESO pursuant to Section 34 of the *EU Act*, or prepared by other parties pursuant to Section 13 of the *Transmission Regulation AR 86/2007* (the *Regulation*)) or completion of the Needs Identification Filing (NIF) pursuant to Sections 11 and 12 of the *Regulation* and provisions for NIF in this directive.

...re making application to the Board for electric facilities, you must have regard for the following provisions in the *EU Act*:

- Pursuant to Section 101(1) of the *EU Act*, if you wish to obtain electricity for use on a property, you must make arrangements for the purchase of distribution access service from the owner of the electric distribution system in whose service area[1] the property is located.
- Pursuant to Section 101(2) of the *EU Act*, if you want to receive electricity directly from the transmission system, you may enter into arrangement directly with AESO, provided that you can obtain approval from AESO and the owner of the electric distribution system, in whose service area your property is located.

When AESO direct assigns a project to a TFO or Market Participant, a confirmation of the direct assignment from the AESO **in writing** must accompany the application.

1.3 Application Exemptions

If you are proposing alterations to existing electric facilities and you consider the alterations to be minor, you must contact the EUB and explain the nature of your proposal. The EUB will assess your proposal and will advise you as follows:

- you may proceed with the alterations without EUB involvement, or
- you need to file an Enquiry Proposal Application pursuant to Section 11 of the *Hydro and Electric Energy Regulations*, in which case your proposal would be permitted by Letter of Enquiry, or
- you need to file an application for a new approval, permit, or licence pursuant to Sections 11, 14, or 15 of the *HEE Act* to carry out the proposed alterations.

If you plan to generate electric energy solely for your own use, you must file a power plant application containing all the information required by this directive. The EUB will assess whether an approval pursuant to Section 11 of the *HEE Act* can be issued or whether your plant can be exempted pursuant to Section 13 of the *HEE Act*.

If you plan to transmit electric energy over your own land and solely for your own use or within an industrial system that has been designated by an EUB approval, you must contact the EUB and explain the nature of your proposal. The EUB will assess whether you need to file an application for a permit and licence (pursuant to Sections 14 and 15 of the *HEE Act*), or, whether your facilities can be exempted pursuant to Section 16 of the *HEE Act*.

If you plan to distribute electric energy over your own land and solely for your own use, and apply to the Board pursuant to Section 24 of the *HEE Act* for exemption from Part 3 of the *HEE Act*, you must, prior to filing the application, contact the electric distribution utility in whose service area you are proposing to distribute electric energy, and explain the nature of

your proposal. Further, if the requested exemption relates to a proposed or anticipated ISD, the Board wishes to advise the applicant that distribution facilities constructed pursuant to the exemption may be subject to transfer to the DFO at a later date, if the ISD is not perfected in a reasonable period of time.

1.4 Application Process

Requirements, Enforcement, and Expectations

EUB requirements and recommended practices are numbered sequentially within each section of this directive. "Must" indicates a requirement, and "recommends" or "expects" indicate a recommended practice.

Step 1: Preparing and Application

Prior to filing your application, you must complete the participant involvement program. (See Appendix A – Participant Involvement Program Requirements). You must include documentation describing your notification and consultation program in your application.

For certain electric facilities you must also obtain specific approvals or signoffs from other entities prior to filing your application, as these are to be submitted as attachments to the EUB application. Only after you have completed and documented the participant involvement program, obtained all other approvals and signoffs, and compiled all the information required, may you proceed to file your application with the EUB.

Step 2: Filing

You must file your application electronically using the Electronic Application Submission (EAS) System, which is accessible via the EUB Web site www.eub.ca. Please refer to the Digital Data Submission (DDS) User Guide and to the EAS Utilities Applications User Guide for instruction on how to obtain a DDS login and how to submit utility applications electronically.

If your electronic application contains maps or drawings that are difficult to view on a computer screen, you may be required to provide paper copies of these documents. If the application proceeds to a hearing or is otherwise complex, you may be asked to provide additional paper copies.

The Board may choose to hold an electronic hearing. Any party wishing to intervene in an electronic proceeding would register to participate through the Proceeding Submission system available through the EUB Digital Data Submission (DDS) quick link on the EUB Web site www.eub.ca. Parties wishing to participate must have a valid DDS log-in ID with the DDS role of "Participate in a Proceeding".

Pursuant to Section 12 of the EUB *Rules of Practice* (available on the EUB Web site www.eub.ca), all documents filed in respect of a proceeding, including any application submissions or other documents filed prior to the commencement of the proceeding, must be placed on the public record unless otherwise ordered by the Board. Please ensure that all application submissions are free of information that you do not want to appear on a public record.

The EUB no longer processes any application that contains major deficiencies. If the application contains major deficiencies, it will be closed and the applicant will receive an explanation via electronic mail. An example of a major deficiency is the omission of key information, such as neglecting to include participant involvement information or a noise impact assessment when applying to build a power plant in proximity to residences.

If the application has minor deficiencies, the EUB may request further information from the applicant. Failure to respond in the stated time frame may result in the EUB closing your application with written notification of the reason for the rejection.

If you are proposing a major development, such as a large power plant or a high-voltage transmission line of significant length, the information requirements in this directive may not be sufficient to assess the full impact of your project. In that case, you should consult with Alberta Environment (AENV), to determine if an Environmental Impact Assessment (EIA) is required. Also contact the EUB in the initial stages of preparing your application to determine the level of detail required.

The EUB requires applicants to address all concerns raised by potentially directly and adversely affected persons. If you cannot resolve the concerns, the EUB's Appropriate Dispute Resolution (ADR) program (see *IL 2001-01: Appropriate Dispute Resolution [ADR] Program and Guidelines for Energy Industry Disputes*) has options for help in resolving issues, including negotiations and facilitation. EUB staff, if requested, can assist in explaining EUB rules and in facilitation.

If you conclude that further discussion is unlikely to resolve issues, you should inform the EUB, outlining the concerns and the steps you have taken to resolve problems.

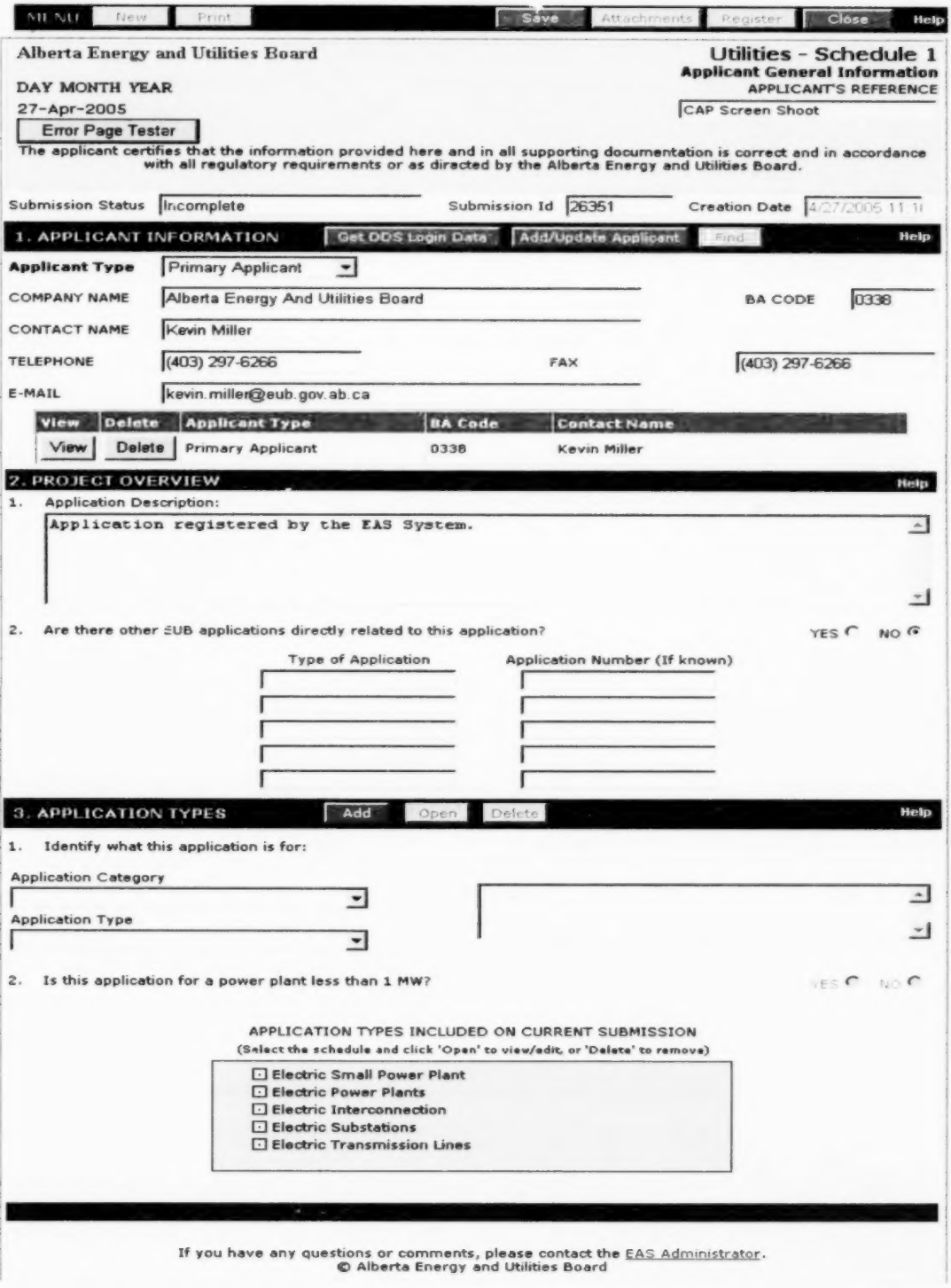
1.5 Electronic Application Structure

Electronic applications are structured as a set of electronic schedules, which the applicant should fill out directly in the EUB Web-based EAS System, together with a set of electronic attachments, which the applicant should upload into the EAS System. Some of the required information is to be entered directly into the schedules, however the bulk of the information must be placed into the appropriate electronic attachments. The following sections of this directive have been arranged to indicate, for each type of electric facility application, not only the information that is required, but also where the information needs to be placed.

All applicants must complete Utilities - Schedule 1: Applicant General Information, which is required for all application types covered in *Directive 028*. Section 2 explains the information that needs to be entered in Schedule 1.

There are additional schedules for the power plant, interconnection, transmission line, and substation application types respectively. In addition, for each application type there is a set of mandatory electronic attachments that must be uploaded before the application can be submitted to the EUB. The information requirements, schedules, and attachments for each application type are outlined in each section of this directive.

2 Schedule 1 Applicants General Information



MENU | New | Print | Save | Attachments | Register | Close | Help

Alberta Energy and Utilities Board

Utilities - Schedule 1
Applicant General Information

DAY MONTH YEAR
27-Apr-2005

APPLICANT'S REFERENCE
CAP Screen Shoot

Error Page Tester

The applicant certifies that the information provided here and in all supporting documentation is correct and in accordance with all regulatory requirements or as directed by the Alberta Energy and Utilities Board.

Submission Status: Incomplete | Submission Id: 26351 | Creation Date: 4/27/2005 11:1

1. APPLICANT INFORMATION | Get DDS Login Data | Add/Update Applicant | Find | Help

Applicant Type: Primary Applicant

COMPANY NAME: Alberta Energy And Utilities Board | BA CODE: 0338

CONTACT NAME: Kevin Miller

TELEPHONE: (403) 297-6266 | FAX: (403) 297-6266

E-MAIL: kevin.miller@eub.gov.ab.ca

View	Delete	Applicant Type	BA Code	Contact Name
View	Delete	Primary Applicant	0338	Kevin Miller

2. PROJECT OVERVIEW | Help

1. Application Description:

Application registered by the EAS System.

2. Are there other SUB applications directly related to this application? YES ○ NO ●

Type of Application	Application Number (If known)

3. APPLICATION TYPES | Add | Open | Delete | Help

1. Identify what this application is for:

Application Category

Application Type

2. Is this application for a power plant less than 1 MW? YES ○ NO ○

APPLICATION TYPES INCLUDED ON CURRENT SUBMISSION
(Select the schedule and click 'Open' to view/edit, or 'Delete' to remove)

- Electric Small Power Plant
- Electric Power Plants
- Electric Interconnection
- Electric Substations
- Electric Transmission Lines

If you have any questions or comments, please contact the EAS Administrator.
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Schedule 1 – Guide

When to Use Schedule 1

Utility - Schedule 1: Applicant General Information is required for all application types covered in *Directive 028.*

Schedule 1 provides information identifying the applicants, consultants, and/or law firms submitting the application. It allows you to define the application types, such as electric power plant, transmission line, substation, industrial system designation, etc. You may include several application types using a single Schedule 1. (Please consult the EAS Utilities Applications User Guide for instruction on how to use the different control buttons and menus in this schedule.)

Part 1: Applicant Information

Applicant Type

Select Primary Applicant, Co-applicant, Law firm, or Consultant. An application must have one primary applicant.

Company Name

Enter your company name and BA Code.

As applicant, your company is responsible for the accuracy and completeness of this application and all supporting technical information.

Contact Name

Enter the name of the person responsible for preparing this application. The EUB will direct correspondence and questions about the application to this person.

Telephone/Fax

Enter the telephone number and facsimile number of the contact person, including area code.

E-mail Address

Enter the e-mail address of the contact person. Any correspondence from the EUB will be sent to this e-mail address.

Mailing Address

Enter the company's complete mailing address, including postal code.

Part 2: Project Overview

1. Application description

Describe what this application is for and the reasons for your application (for example, a transmission line to provide electric supply for an industrial complex).

2. Are there other EUB applications directly related to this application?

If Yes: Provide the application type and application number of other directly related applications.

Part 3: Application Types

1. Identify what this application is for.

Select: Electric – Power Plant, Interconnection, AESO Need, Transmission Line, Substation, or Industrial System Designation.
Note: You can add multiple applications types.

2. Is this application for a power plant less than 1 MW?

Check Yes or No, whichever is applicable.
If you check "Yes" the EAS System will require you to fill out the Small Power Plant Application Schedule.
If you check "No" the EAS System will require you to fill out the Power Plant Application Schedule.

3 Power Plant Applications 1 Megawatt (MW) or Greater

If you are applying to construct and operate a new power plant or to alter an already-approved plant (pursuant to Section 11 of the *HEE Act*), your application must include the requirements outlined below. Fill out the *Directive 028* – Power Plant Application Schedule, and upload the required Power Plant Attachments

3.1 Information requirements

3.1.1 Legislation

PP1) Identify the sections of the *HEE Act* under which the application is made.

PP2) Identify any other acts (e.g., *EU Act*, *Environmental Protection and Enhancement Act*) that may affect your project.

PP3) State the approvals that you are applying for from the EUB.

PP4) Provide a list of existing approvals for facilities directly affected by this project, if any.

PP5) Submit a copy of approval or a letter indicating "agreement/no concern" from local jurisdictions (e.g., municipal districts, counties).

PP6) Provide a list of parties that may be affected by your project, confirm that these parties have no concerns regarding your application, and indicate which other agreements are necessary to carry out your project.

PP7) Provide a copy of your approvals from NAV CANADA and Transport Canada if you are submitting an application for a wind power plant.

PP8) Provide a copy of your approval from Alberta Transportation if you are applying for a wind power plant that is within 300 metres (m) of a numbered highway.

PP9) Confirm that you have made an application to Alberta Environment (AENV), if applicable, and list all other government departments and agencies from which approval is required.

For wind power applications Alberta Sustainable Resource Development (ASRD) – Fish and Wildlife Division must be included on the referral list. The Board requires a sign off from ASRD prior to processing any new wind power applications.

For a municipality or a subsidiary of a municipality to hold an interest in a generating unit, documentation confirming compliance with Section 95 of *EU Act* is required.

PP10) Confirm that consultation has taken place with Alberta Community Development. If a historical and/or archaeological impact assessment is required, submit a summary describing any historical or archaeological sites and parks affected by your proposal.

PP11) Provide the AESO-assigned asset identification code, if available.

3.1.2 Project Description

PP12) Provide the legal description of the proposed power plant site (Legal Subdivision [LSD], Section, Township, Range, Meridian) and connection point, if applicable.

PP13) For wind power plant applications, provide the longitude and latitude coordinates for the centre of each structure supporting a wind-powered generator. If after approval is granted, the location of any supporting structure has to be relocated more than 50 m from the coordinates stated in the application, the power plant proponent must re-apply to the EUB for approval to relocate the structure prior to construction.

PP14) Describe the project site and the regional setting of the development.

PP15) Describe the number of generating units and the total capacity (kilovoltampere [kVA], or megavoltampere [MVA]) for the project.

PP16) Provide a general overview of environmental impacts (such as noise, visual, emissions, land disturbances, surface water).

3.1.3 Participant Involvement Program

PP17) Describe the participant involvement information. (See Appendix A – Participant Involvement Program Requirements).

PP18) List all occupants, residents, and landowners on lands within 2000 m of the project area, as well as other interested persons, that you consulted as part of your participant involvement program. If there are populated areas just outside the 2000 m limit, applicants should consider including those areas in the participant involvement program.

PP19) Supply a list of mailing addresses, with corresponding land locations and 2 sets of printed mailing labels of those parties mentioned in PP18 above.

PP20) Identify any persons who expressed concerns about the project and the specifics of their concerns.

PP21) Summarize discussions held with potentially directly and adversely affected persons.

PP22) If potentially directly and adversely affected persons raised any concerns, describe how you dealt with or will deal with them.

PP23) For those potentially directly and adversely affected persons identified above, include a confirmation of resolution of the concerns, if applicable.

3.1.4 Land Use

PP24) Describe the existing land use.

PP25) Discuss potential siting and land-use issues.

PP26) If the power plant is to be located within an oil and gas facility, confirm the power plant will comply with the standards outlined in Sections 8.090 and 8.170 of the *Oil and Gas Conservation Regulations*.

3.1.5 General Operating Information

PP27) Provide a noise impact assessment, in accordance with the current EUB *Directive 038: Noise Control*.

PP28) Provide details of your power generating equipment and associated facilities, such as make, model, and nominal capacity.

PP29) Present the estimated power plant heat rates, efficiency, and details of cooling system.

PP30) State the fuel requirements of the power plant, including type, source, method of handling, transportation, and environmental effects.

PP31) State the projected annual electric energy production.

3.1.6 Maps, Drawings, and Other Documents

PP32) Provide a legible plant site drawing showing all major equipment components.

For wind power plants, provide a legible map showing the gathering system (i.e., the power lines connecting each wind turbine to the plant's main substation) and the locations of existing road allowances.

PP33) Provide a legible map showing the power plant site boundaries and land ownership, as well as any residences and dwellings within 2000 m of the boundaries.

PP34) Provide a legible map of the project area suitable for use in a public notice.

3.1.7 Construction Schedule

PP35) Supply the expected in-service dates, and describe ramifications if the approval date cannot be met.

3.1.8 Environmental Information

PP36) Indicate the plant's emission rates, in kilograms per megawatt-hour (kg/MWh), of nitrogen oxides (NO_x), sulphur dioxide (SO_2), and primary particulate matter, and state whether the emissions will comply with the current Alberta Source Emission Standards.

PP37) State whether the proposed plant will comply with the Alberta Ambient Air Quality Guidelines for ground-level concentrations of pollutants.

PP38) Provide the EIA as an appendix to your application, if one has been conducted.

You must obtain approval from AENV for thermal power plant facilities greater than 1 MW in total capacity at one site. An EIA is mandatory for thermal power plant facilities that use nongaseous fuel and are greater than 100 MW in total capacity; an EIA may be required for other power plant facilities regardless of total capacity. When an EIA is not mandatory, AENV will determine if it is necessary, based on the specific nature of the project. You should consult with the EUB and AENV in the initial stages of preparing your application to determine the level of detail required.

3.1.9 Connection Information—Power Plants without accompanying application for connection

PP39) If the power plant is to be connected at transmission voltage level (generally 69 kV or greater), the following information must be provided:

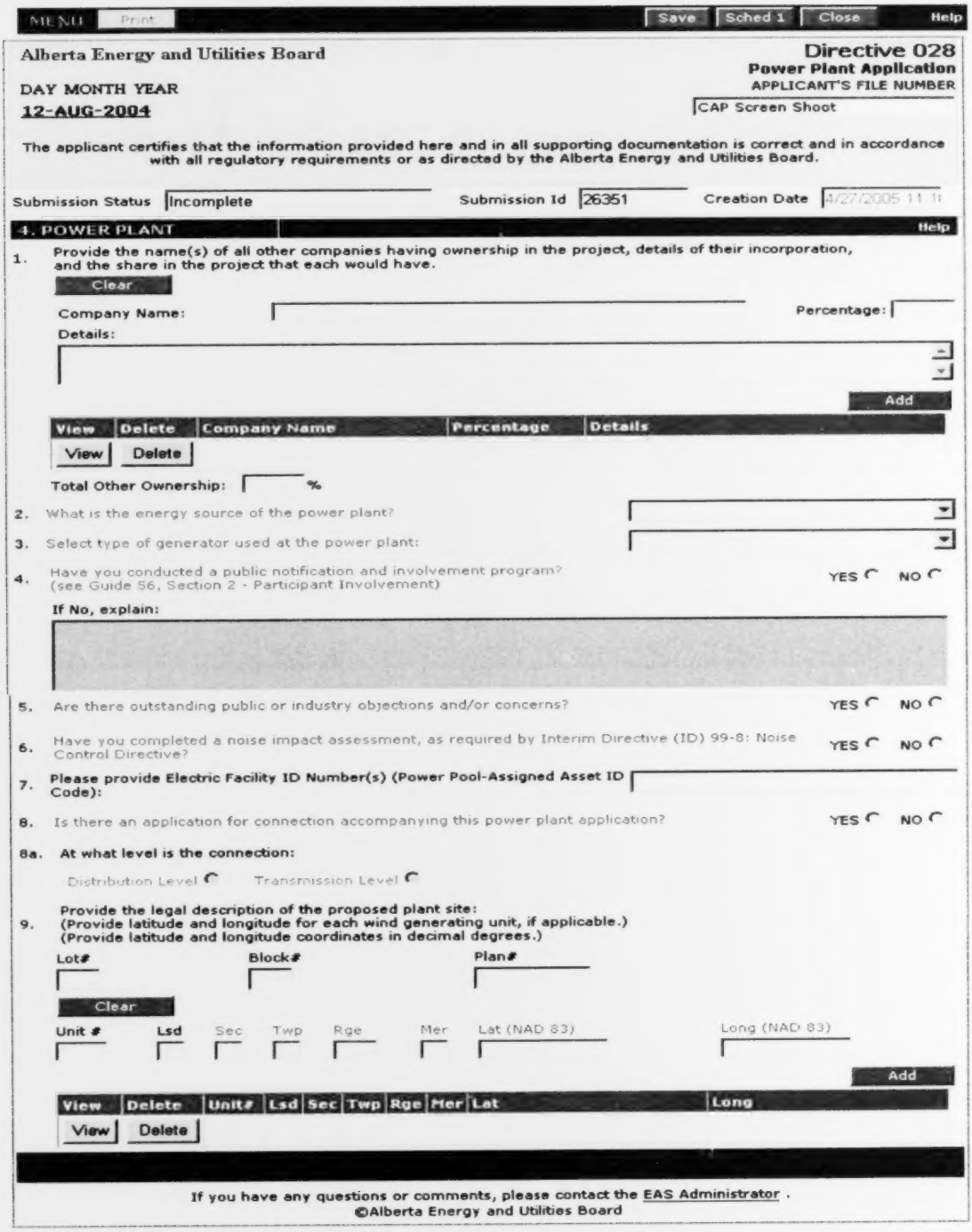
- area transmission system load flow studies obtained from AESO or sanctioned by AESO to show transmission system adequacy to support the new power plant
- cost estimate for the interconnection and the required system upgrades

- draft functional specifications of system upgrades for system access and components for generator connection
- proponent's contribution, if any, toward the capital cost of the interconnection

PP40) If the power plant is to be connected at distribution voltage level (generally less than 69 kV), you must provide a statement from the Distribution Facility Owner (DFO) indicating that it is willing to connect your generating facilities.

PP41) For a municipality or a subsidiary of a municipality to hold an interest in a generating unit, documentation confirming compliance with Section 95 of the *EU Act* is required.

3.2 Power Plant Application Schedule



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Alberta Energy and Utilities Board

Directive 028
Power Plant Application
APPLICANT'S FILE NUMBER: CAP Screen Shoot

DAY MONTH YEAR
12-AUG-2004

The applicant certifies that the information provided here and in all supporting documentation is correct and in accordance with all regulatory requirements or as directed by the Alberta Energy and Utilities Board.

Submission Status: Incomplete | Submission Id: 26351 | Creation Date: 4/27/2005 11:11

4. POWER PLANT | Help

1. Provide the name(s) of all other companies having ownership in the project, details of their incorporation, and the share in the project that each would have.

Clear

Company Name: | Percentage:

Details:

Add

View	Delete	Company Name	Percentage	Details

View | Delete

Total Other Ownership: %

2. What is the energy source of the power plant?

3. Select type of generator used at the power plant:

4. Have you conducted a public notification and involvement program? (see Guide 56, Section 2 - Participant Involvement) YES NO

If No, explain:

5. Are there outstanding public or industry objections and/or concerns? YES NO

6. Have you completed a noise impact assessment, as required by Interim Directive (ID) 99-8: Noise Control Directive? YES NO

7. Please provide Electric Facility ID Number(s) (Power Pool-Assigned Asset ID Code):

8. Is there an application for connection accompanying this power plant application? YES NO

8a. At what level is the connection:

Distribution Level | Transmission Level

9. Provide the legal description of the proposed plant site:
(Provide latitude and longitude for each wind generating unit, if applicable.)
(Provide latitude and longitude coordinates in decimal degrees.)

Lot# | Block# | Plan#

Clear

Unit # | Lsd | Sec | Twp | Rge | Mer | Lat (NAD 83) | Long (NAD 83)

Add

View	Delete	Unit#	Lsd	Sec	Twp	Rge	Mer	Lat	Long

View | Delete

If you have any questions or comments, please contact the EAS Administrator .
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Power Plant Application Schedule – Guide

The Power Plant Application Schedule is for construction, operation, or alteration of a power plant 1 MW or greater. Make sure that you answer all the questions and include all the information required. Once you have completed this schedule, you may proceed to upload the attachments on EAS.

1) Provide the names of all **other** companies having ownership in the project, details of their incorporation, and the share in the project that each would have. (Note: Do not answer this question if you are the sole owner of the project).

2) What is the energy source of the power plant?

3) Select type of generator used at the power plant.

4) Have you conducted a participant involvement program? If you answer "No" you must provide reasons. If you answer "Yes", ensure that you provide details about your program in the Participant Involvement Program attachment.

5) Are there outstanding public or industry objections and/or concerns?

6) Have you completed a noise impact assessment, as required by the current EUB *Directive 038: Noise Control*?

7) Provide Electric Facility ID Number(s) (Power Pool-Assigned Asset ID Code).

8) Is there an application for connection accompanying this power plant application?

   If Yes: You must include an Interconnection application type together with the Power Plant application type in Schedule 1.

   If No: You must then answer Question 8a: "At what voltage level is the connection" and select either Distribution level or Transmission level.

9) Provide the legal description of the proposed plant site (and latitude and longitude for each wind generating unit, if applicable). Note: For wind power plant applications, provide the longitude and latitude coordinates for the centre of each structure supporting a wind-powered generator. For all other power plant types, provide the longitude and latitude coordinates of the powerhouse.

3.3 Power Plant Application Attachments

The EAS process requires an applicant for power plant approval to upload each section as a separate attachment. Information requirements for each attachment are combinations of those described in previous sections and grouped in the following tables;

ATTACHMENT	INFORMATION REQUIREMENTS
Application	Requirements No. (PP1), (PP2), (PP3), (PP4), (PP9), (PP10), (PP11), (PP12), (PP13), (PP14), (PP15), (PP16), (PP24), (PP25), (PP26), (PP28), (PP29), (PP30), (PP31), (PP35), (PP36), (PP37), and (PP41)
Development Permit	Requirement No. (PP5)
Participant Involvement Program	Requirements No. (PP6), (PP17), (PP18), (PP19), (PP20), (PP21), (PP22), and (PP23)
Mailing Labels	Requirement No. (PP19)
Noise Impact Assessment	Requirement No. (PP27)
Alberta Transportation Approval	Requirement No. (PP8) (For wind power plant applications)
NAV Canada Approval	Requirement No. (PP7) (For wind power plant applications)
Transport Canada Approval	Requirement No. (PP7) (For wind power plant applications)
Project Area Map	Requirement No. (PP34)
Plant Site Boundary Map	Requirement No. (PP33)
Plant Site Drawing	Requirement No. (PP32)
Environmental Impact Assessment	Requirement No. (PP38)

Additional attachments for Power Plants applications without accompanying application for connection (i.e., you answered "No" to Question 8 on the Power Plant Schedule)

If the power plant is to be connected at transmission voltage level (generally 69 kV or greater), the following information must be provided in the attachments indicated below:

Electric Single-line Diagram	Requirement No. (PP39)
Load Flow Studies	Requirement No. (PP39)
Functional Specifications	Requirement No. (PP39)

If the power plant is to be connected to a distribution system, (generally less than 69 kV) the following information must be provided in the attachments indicated below.

Connection Agreement	Requirement No. (PP40)

For Power Plants applications that request interconnection order (i.e., you answered "Yes" to Question 8 on the Power Plant Schedule and checked the Interconnection Application type on Schedule 1), the applicant has to upload the Interconnection Application Attachments, as explained in this directive.

4 Small Power Plant Applications Less Than 1 Megawatt (MW)

4.1 Small Power Plant Applications Information Requirements

If you are applying for construction, operation, or alteration of a small power plant (less than 1 MW), you must fill out the Directive 028 – Small Power Plant Application Schedule. Make sure that you answer all the questions and include all the information required. Once you have completed this schedule, you may proceed to upload the attachments. The information requirements for small power plant applications are presented in the Small Power Application Schedule as well as in the following Small Power Application Attachments.

Note that when submitting an application using the Small Power Plant Application Schedule, your application is made pursuant to sections 11 and 18 of the *HEE Act*. Therefore, you don't need to file an accompanying interconnection application.

4.2 Small Power Plant Application Schedule

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Alberta Energy and Utilities Board

Directive 028
Small Power Plant Application
APPLICANT'S FILE NUMBER
CAP Screen Shoot

DAY MONTH YEAR
12-AUG-2004

The applicant certifies that the information provided here and in all supporting documentation is correct and in accordance with all regulatory requirements or as directed by the Alberta Energy and Utilities Board.

Submission Status: Incomplete Submission Id: 26351 Creation Date: 4/27/2005 11:11

4. SMALL POWER PLANT Help

Pool-Assigned Asset ID Code:

1. Provide the name(s) of all other companies having ownership in the project, details of their incorporation, and the share in the project that each would have.

Clear

Company Name: Percentage:

Details:

Add

View	Delete	Company Name	Percentage	Details
View	Delete			

Total Other Ownership: %

2. What is the energy source of the power plant?

3. Select type of generator used at the power plant:

4. Power Plant Operator/Owner (If different from applicant):

5. Provide the legal description of the proposed plant site:
(Provide latitude and longitude for each wind generating unit, if applicable.)
(Provide latitude and longitude coordinates in decimal degrees.)

Lot# Block# Plan#

Clear

Unit # Lsd Sec Twp Rge Mer Lat (NAD 83) Long (NAD 83)

Add

View	Delete	Unit#	Lsd	Sec	Twp	Rge	Mer	Lat	Long	LocationSeq
View	Delete									

6. Name plate capacity (kW)

7. Number of units

8. Projected annual electric production (kWh)

9. Expected plant-in-service date(dd-mmm-yy)

10. Utility company to be connected to

11. Agreement from utility company for connection: YES ○ NO ○

11a. If Yes, legal description of the connection point is: (Provide latitude and longitude coordinates in decimal degrees)

Lsd Sec Twp Rge Mer Lat (NAD 83) Long (NAD 83) Lot# Block# Plan#

11b. If No, state how you will achieve connection to the Alberta Electric System

12. Voltage level of connection: Volts

13. Is the energy produced to be used solely by the power plant owner? YES ○ NO ○

14. If the power plant owner does not use all the energy produced, that not used will be sold to:

Alberta Power Pool ○ Other Customers ○

15. **Will the plant meet the Alberta Ambient Air Quality Guidelines (thermal plants only)?** Yes ○ No ○

16. Will you attach a noise impact assessment, as per EUB Interim Direction (ID) 99-8? Yes ○ No ○

If No, State why not:

17. Have you conducted a public notification and involvement program? (see Guide 56, Section 2 - Participant Involvement) Yes ○ No ○

If No, State why not:

17a. Are there public objections? Yes ○ No ○

18. Will you attach a copy of an approval for a development permit from the appropriate municipal district or county? Yes ○ No ○

If No, State why not:

19. **Will you attach a copy of an approval from NAV CANADA and Transport Canada if the application is for the approval of a wind power plant?** Yes ○ No ○

If No, State why not:

20. Does the proposed plant comply with Fencing Standards as described in Sections 8.170 and 8.090 of the Oil and Gas Conservation Regulations? Yes ○ No ○

If No, State why not:

21. **Will you attach a copy of Alberta Transportation Approval for a wind plant located within 350 meter from a numbered highway?** Yes ○ No ○

If No, State why not:

If you have any questions or comments, please contact the EAS Administrator .

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Small Power Plant Application Schedule – Guide

You must provide the following information, and answer the following questions, in the Small Power Plant Schedule:

Provide the Power Pool-Assigned Asset ID code (Applicable only for a power plant proposed to be connected to the local utilities system)

1) Provide the name(s) of all **other** companies having ownership in the project, details of their incorporation, and the share in the project that each would have. (Note: Do not answer this question if you are the sole owner of the project).

2) What is the energy source of the power plant?

3) Select type of generator used at the power plant.

4) Power plant operator/owner (if different from applicant)

5) Provide the legal description of the proposed plant site (and latitude and longitude for each wind generating unit, if applicable). Note: For wind power plant applications, provide the longitude and latitude coordinates for the centre of each structure supporting a wind-powered generator. If after approval is granted, the location of any supporting structure has to be relocated more than 50 m from the coordinates stated in the application, the power plant proponent must re-apply to the EUB for approval to relocate the structure prior to construction. For all other power plant types, provide the longitude and latitude coordinates of the powerhouse.

6) Name plate capacity (kW)

7) Number of units

8) Projected annual electric production (kWh)

9) Expected plant in-service date

10) Utility company to be connected to

11) Agreement with utility company for connection – Yes or No.

    a) If you answer "Yes", then you have to answer question 11a by providing the legal description of the connection point location.

    b) If you answered "No", explain how you will achieve connection to the Alberta Electric System. (Note: if you answered "No" because you are still in the process of negotiating and agreement with the utility company, you should say so; you should also provide the utility person contact information)

12) Voltage level of the connection

13) Is the energy produced to be used solely by the power plant owner? Yes or No.

    Note: If you answered "No" the EUB will assess whether an approval pursuant to section 11 of the *HEE Act* would be issued or whether your proposal can be exempted pursuant to Section 13 of the *HEE Act*.

14) If the power plant owner does not use all the energy produced, will the surplus be sold to: Alberta Power Pool or Other Customers.

15) Will the plant meet the Alberta Ambient Air Quality Guidelines (thermal plants only) – Yes or No.

16) Will you attach a noise impact assessment, as per the current EUB *Directive 038: Noise Control*.

a) If you answer "No" you must explain why you think a noise impact assessment is not required.

b) If you answer "Yes", you must upload the Noise Impact Assessment Attachment after you complete this schedule.

17) Have you conducted a participant involvement program?

a) If you answer "No" you must provide reasons.

b) If you answer "Yes" you must ensure that you provide details about your program in the Participant Involvement Program Attachment and upload it after you complete this schedule.

Answer Question 17a: Are there public objections? - Yes or No.

18) Will you attach copy of an approval for a development permit from the appropriate municipal district or county? Yes or No

a) If you answer "No" you must provide reasons.

b) If you answer "Yes" you would have to upload the Development Permit Attachment after you complete this schedule.

19) Will you attach copy of an approval from NAV Canada and from Transport Canada if the application is for the approval of a wind power plant? Yes or No

If you answer "No" you must provide reasons.

If you answer "Yes" you would have to upload both the NAV Canada Approval Attachment and the Transport Canada Approval Attachment after you complete this schedule.

20) If the proposed power plant is to be located within an oil and gas facility, does the proposed plant comply with Fencing Standards as described in Sections 8.090 and 8.170 of the *Oil and Gas Conservation Regulations*? Yes or No. If you answer "No" you must provide reasons.

21) Will you attach copy of Alberta Transportation Approval for a wind plant located within 300 meters from a numbered highway? Yes or No

If you answer "No" you must provide reasons.

If you answer "Yes" you would have to upload the Alberta Transportation Approval Attachment after you complete this schedule.

22) For a municipality or a subsidiary of a municipality to hold an interest in a generating unit, documentation confirming compliance with Section 95 of *EU Act* is required.

4.3 Small Power Plant Application Attachments

The EAS process requires an applicant for small power plant approval to upload each section as a separate attachment. Information requirements for each attachment are grouped in the following tables.

ATTACHMENT	INFORMATION REQUIREMENTS
Development Permit	Confirmation that the applicant has submitted an application for a development permit from the appropriate municipal district or county. (Required if you answered "Yes" to Question 18 on the Small Power Plant Schedule)
Participant Involvement Program	Details of the participant involvement program or a statement that the applicant has conducted the participant involvement program as detailed in Participant Involvement Program Requirements (Appendix A) and that there are no participant objections and/or concerns (Required if you answered "Yes" to Question 17 on the Small Power Plant Schedule)
Objection Summary	A description of the nature of the objection(s) with the names, addresses, and telephone numbers of the objecting parties. (Required if you answered "Yes" to Question 17a on the Small Power Plant Schedule)
Noise Impact Assessment	Provide a noise impact assessment, in accordance with the current EUB *Directive 038: Noise Control* (Required if you answered "Yes" to Question 16 on the Small Power Plant Schedule)
Alberta Transportation Approval	Confirmation that you have submitted an application for approval from Alberta Transportation if you are applying for a wind power plant that is within 300 metres (m) of a numbered highway. (Required if you answered "Yes" to Question 21 on the Small Power Plant Schedule)
NAV Canada Approval	Confirmation that you have submitted an application for approval from NAV CANADA if you are submitting an application for a wind power plant. (Required if you answered "Yes" to Question 19 on the Small Power Plant Schedule)
Transport Canada Approval	Confirmation that you have submitted an application for approval from Transport Canada if you are submitting an application for a wind power plant. (Required if you answered "Yes" to Question 19 on the Small Power Plant Schedule)
Plant Site Drawing	Provide a legible plant site drawing showing all major equipment components.
Electric Single-line Diagram	Provide an electric single-line diagram showing the power plant and the interconnection point with the Alberta electric system

5 Interconnection Applications

If you are applying for interconnection (pursuant to Section 18 of the *HEE Act*) of a power plant to the Alberta Interconnected Electric System or for interconnection of two transmission elements owned by different parties, you must include all the information requirements outlined below, fill out the Directive 028 – Interconnection Application Schedule, and upload the required Interconnection Attachments.

5.1 Information Requirements

5.1.1 Connection at Voltage Level Less than 69 kV

IC1) Provide a statement that the local distribution company has agreed to interconnection, the LSD of the interconnection point, and an electric single-line diagram showing the interconnection point with the company. This agreement must reflect that the interest of current customers of the distribution company are served, that provision for future customer load has been made, and that both parties (generator and wire owner) are satisfied with the arrangement and its implications.

5.1.2 Connection at the Transmission System – Voltage Level 69 kV or Greater

The power plant proponent has to obtain the information requirement for this section from the AESO or provide the same done by qualified in-house personnel or consultants and endorsed by AESO.

IC2) Provide local area load flow studies, including contingency analysis, with sufficient detail to demonstrate that the proposed interconnection would conform with current accepted planning criteria. Present the report of these studies with sufficient graphical outputs, which should be labelled and indexed to provide clarity as to what was studied.

IC3) For connection of power plants with total capacity of 70 MW or larger, provide dynamic studies to determine the impact of the new generation on the transient and dynamic stability of the Alberta Interconnected Electric System (AIES). These dynamic studies should include system response to close-in and worst-case three-phase faults with and without the new plant addition to show the relative system performance. Study results should include macro-system quantities, such as machine angles, major bus voltages, major line active and reactive power flows, and system frequency. Present the report for the studies with sufficient graphical outputs labeled and indexed to provide clarity as to what was studied. For power plants with total capacity over 10 MW but less than 70 MW, the EUB, in consultation with AESO, will assess the need for dynamic studies.

IC4) For connection of wind farms, provide details of how dynamic voltage control and "Low Voltage Ride Through" ability respectively to conform with the current accepted standard are provided at the point of interconnection. Details should include control block diagrams of the voltage control system and time domain responses to illustrate dynamics and stability of the voltage control system.

IC5) Provide short circuit levels at substations near the proposed connection.

IC6) Provide the most up-to-date functional specifications when the application is filed and the final functional specification before construction of the project begins.

IC7) Include a cost estimate for the connection and required system upgrades.

IC8) Explain proponent's contribution, if any, toward the capital cost of the interconnection.

5.2 Interconnection Application Schedule

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Alberta Energy and Utilities Board

Directive 028
Interconnection Application

DAY MONTH YEAR
12-AUG-2004

APPLICANT'S FILE NUMBER
CAP Screen Shoot

The applicant certifies that the information provided here and in all supporting documentation is correct and in accordance with all regulatory requirements or as directed by the Alberta Energy and Utilities Board.

Submission Status: Incomplete Submission Id: 26351 Creation Date: 4/27/2005 11:14

4. INTERCONNECTION

Help

1. Provide the name(s) of all other companies having ownership in the project, details of their incorporation, and the share in the project that each would have.

Clear

Company Name: Percentage:

Details:

Add

View	Delete	Company Name	Percentage	Details

View | Delete

Total Other Ownership: %

2. Have you conducted a public notification and involvement program? (see Guide 56, Section 2 - Participant Involvement) YES ○ NO ○

If No, explain:

3. Are there outstanding public or industry objections and/or concerns? YES ○ NO ○

4. Is this application to connect a power plant or two transmission elements?

Power Plant ○ Transmission Elements ○

5. Is this application for connection at the distribution level or transmission voltage level (generally greater than 25kV)?

Power Plant ○ Transmission Elements ○

6. If this application is for connection of a power plant at the transmission level, what is the capacity of the plant?

Less than 70 MW ○ More than 70 MW ○

7. Provide the legal description, latitude and longitude of the interconnection point.

Lsd	Sec	Twp	Rge	Mer	Lat (NAD 83)	Long (NAD 83)

If you have any questions or comments, please contact the EAS Administrator .

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Interconnection Application Schedule – Guide

1) Provide the names of all **other** companies having ownership in the project, details of their incorporation, and the share in the project that each would have. (Note: Do not answer this question if you are the sole owner of the project).

2) Have you conducted a participant involvement program? If you answer "No" you must provide reasons. If you answer "Yes", ensure that you provide details about your program in the Participant Involvement Program attachment.

3) Are there outstanding public or industry objections and/or concerns?

4) Is this application to connect a power plant or two transmission elements?

5) Is this application for connection at the distribution level or transmission voltage level (generally 69 kV or greater)?

6) If this application is for connection of a power plant at the transmission level, what is the capacity of the plants? Select either "Less than 70 MW" or "More than 70 MW"

7) Provide the legal description, latitude and longitude of the interconnection point.

5.3 Interconnection Application Attachments

If the power plant is to be connected at transmission voltage level (generally 69 kV or greater), the following information must be provided in the attachments indicated below:

Application	Requirements No. (IC4), (IC7), (IC8)
Load Flow Studies	Requirement No. (IC2)
Functional Specifications	Requirement No. (IC6)
Dynamic Studies	Requirement No. (IC3) for plants 70 MW or more
Short Circuit Studies	Requirement No. (IC5)

If the power plant is to be connected to a distribution system, (generally below 69 kV) the following information must be provided in the attachments indicated below.

Application	Requirement No. (IC1)
Connection Agreement	Requirement No. (IC1)
Interconnection Point Diagram	Requirement No. (IC1)

6 Needs Identification Applications to Construct or Alter a Substation or Transmission Line

The *EU Act*, the *Transmission Regulation* AR 86/2007 (the *Regulation*) have introduced changes to the process for obtaining approval of the need for electric transmission projects. Notwithstanding the changes, AESO continues to be responsible for justifying the need for construction of new projects or alterations to existing facilities. This obligation is set out in Section 34 of the *EU Act* and is further clarified in Section 11 and Section 12 of the *Regulation*. That obligation will be referred to in this directive as the AESO need application. With respect to the requirement for filing an AESO need application, the *Regulation* retained some of the elements in the previous version of the *Regulation* but also introduced some significant changes.

Section 34 of the *EU Act* outlines the process, Section 11 of the *Regulation* outlines the required elements of a need application to the EUB, and this directive sets out the details of the information to be included in a need application.

Pursuant to Section 11(6) of the *Regulation*, Needs Identification Documents (NID) are not required for maintenance upgrades, enhancements or other modifications to a transmission facility proposed by a TFO if the maintenance upgrade, enhancement or other modification improves the efficiency or operation of the transmission facility but does not materially affect transmission facility capacity.

The *Regulation* has introduced the abbreviated needs identification approval process. Pursuant to Section 12(1) of the *Regulation*, AESO must make rules or establish practices for an abbreviated needs identification approval process for:

a) each system access service interconnection, and

b) each transmission facility project

of a nature, size and cost determined by AESO rules.

Notwithstanding the above, pursuant to Section 12(2)(b) of the *Regulation*, in making rules or establishing practices under subsection 12(1), AESO must comply with any Board directives or orders respecting an abbreviated needs identification approval process, and the nature, size and cost of an interconnection or project referred to in Section 12 (1).

As well, pursuant to Section 9(2) of the *EU Act* and Section 13 of the *Regulation*, AESO may delegate the preparation of transmission system plans or an NID to one or more Transmission Facility Owners (TFOs) subject to conditions AESO considers appropriate. However, AESO remains responsible for reviewing and approving any plans and documents prepared under such delegation.

In summary, need applications are required for transmission projects that result in an expansion or enhancement to the Alberta Interconnected Electric System. Those projects that could qualify for exception to this rule should be applied for under Section 11(6) or 12(2) of the *Regulation*.

The Board and AESO together with industry stakeholders have jointly revised the application process for generation and load system access service requests and system projects. One of two processes detailed below must be followed depending on the nature of need application, namely:

1) The need application process pursuant to section 34 of the *EU Act* has not changed for major system projects and megaprojects.

Where a new transmission facility is required, AESO will normally prepare the NID which can be submitted as a standalone or jointly with the TFO's facility application. This also applies to interconnection proposals for generator and industrial customers. In a joint application, the two documents will be dealt with in a single EUB process. However, AESO will remain responsible for any concerns raised with the need or proposed method of interconnection. A need approval will be issued to AESO at the same time as a permit and licence to the TFO.

When a TFO is delegated by AESO to provide the project need information, it will submit as part of its facility application to the EUB, the NID and interconnection proposal. AESO will submit an endorsement letter to the EUB endorsing both the need and the interconnection proposal presented by the TFO. A permit and licence will be issued for the facility but no need approval will be issued.

2) To address the requirement of the abbreviated needs identification approval process, applications of customer/generator interconnections or smaller system projects that require less than $10 million in system additions could be made using the EUB's Needs Information Filing (NIF) process to facilitate expedient processing.

When using the NIF process, AESO will file the need information filing with the EUB for information purposes, and the EUB will provide notice to stakeholders of AESO's need information filings. If a stakeholder files a bona fide complaint/objection the EUB will require AESO to file a NID. Otherwise, the EUB will normally acknowledge the AESO's need information filing without conducting a review or further process.

The $10 million threshold related to system additions is defined below:

- A project that requires $11 million in customer additions, and $5 million in system additions, for a total of $16 million, would **not** require a separate NID application in the absence of a bona fide complaint/objection.
- A project that requires $5 million in customer additions, and $11 million in system additions, for a total of $16 million, would require a separate NID application.
- A small system project that requires less than $10 million in additions will not require a separate NID application, as these are generally driven by a number of local interconnections.

Need applications, regardless of who prepares them, should address the following background and technical information requirements. In addition, the information requirements set out below may not be applicable in all cases; they will vary with the complexity and size of the project.

6.1 AESO Needs Identification Application Information Requirements

If an NID pursuant to Section 34 of the *EU Act* is required, the applicant needs to address in details all the requirements listed in Section 11(3) and Section 11(4) of the *Regulation*.

In addition, the following information is also required.

With respect to the current and future operation of the existing transmission system:

NID1) Last five-year summer and winter peak substation loads recorded

NID2) Short circuit levels of all substations in the area under consideration before and after the proposed expansion or enhancements are completed

With respect to the nature of constraints and conditions affecting the operation of the existing transmission system:

NID3) The method to determine and the magnitude of the transfer-out capability of the transmission system prior to and subsequent to the addition of the proposed transmission expansion or enhancement and for any alternatives assessed

With respect to comparison between alternatives considered and the preferred option:

NID4) Comparison of the preferred option and alternatives in details, including:

- economic assessment,
- capital costs,
- flexibility in terms of how the preferred option or the alternatives would contribute to overall system development

NID5) Rating of the new substation and/or transmission lines(s) for the spectrum of operating conditions expected

NID6) Expected reductions in transmission system losses

NID7) System performance by way of load flow studies, stability studies, reactive, and other necessary studies

NID8) Substation configuration

NID9) Transmission circuit configuration and the rationale for the choice of conductor size and arrangement

With respect to cost breakdown:

NID10) For expansions to existing facilities or new transmission facility additions, a detailed cost breakdown for both the applied for option and all alternatives with an accuracy tolerance within plus or minus 30%. This cost breakdown must be provided in the format shown in Appendix B2.

NID11) For industrial interconnections or megaprojects, a detailed cost breakdown for both the applied for option and all alternatives with an accuracy tolerance within plus or minus 30%. This cost breakdown must be provided in the format shown in Appendix B2.

NID12) In those cases where AESO is identifying, as part of its application, a particular area in which the TFO should attempt to ultimately locate the proposed transmission facilities (e.g., a preferred "corridor"), AESO is expected to examine alternatives, and elaborate on the rationale for recommending the preferred option, having regard for the following major aspects, where applicable:

1) AGRICULTURAL IMPACT

a) Loss of crops. This would include short-term loss caused by construction; longer-term losses possible from soil erosion, rutting, drainage, disturbance, and soil mixing; and permanent loss of crop under or adjacent to the tower base.

b) Short–term disruption of farming and livestock grazing resulting from construction.

c) Reduced efficiency of field operations.

d) Restrictions on use of aircraft and high-pressure irrigation systems.

e) Risk of collision with tower; damage to equipment, lost time, liability for damage to tower and secondary liabilities.

f) Reduction in yield adjacent to towers due to overlapping farming operations and added soil compaction.

g) Added cost and inconvenience of weed control under towers.

h) Impact of height restrictions on equipment during field operations.

i) Psychological impact of line.

j) Loss of shelter belts.

k) Shared use with other utilities and transmission lines.

l) Interference with citizen band radios.

2) RESIDENTIAL IMPACT

a) Decrease of property values.

b) Loss of developable lands and constraints on development.

c) Relocation or removal of residence.

d) Psychological impact of the line.

e) Noise and TV interference.

f) Windbreak and other vegetation removal.

g) Conflict with recreational use of land holdings.

h) Public versus private land.

3) ENVIRONMENTAL IMPACT

a) Increased public accessibility to wildlife areas.

b) Alteration of natural areas and interference with outdoor educational opportunities.

c) Use of the Restricted Development Area.

d) Effect on erosion.

e) Unique ecological areas.

4) COST

a) Construction cost.

b) Land acquisition costs.

5) ELECTRICAL CONSIDERATIONS

a) Ease of connections to future load areas.

b) Reliability and repairability of the line.

c) Access for construction and maintenance of the line.

6) VISUAL IMPACT

a) Visual impact of tree removal as seen from roads and recreational installations.

b) Visual impact on dispersed recreational users such as hikers, fishermen, hunters, scenic viewers, and cross country skiers.

c) Visual impact of towers and lines as seen from residences, farms, roads, and recreational installations.

7) SPECIAL CONSTRAINTS

a) Electrical interference with radio transmitting stations, and other telecommunication equipment etc.

NID13) Describe the participant involvement program conducted by AESO for the need application, and the rationale used to develop the participant involvement program and determine the extent of participant involvement (See Appendix A – Participant Involvement Program Requirements). To the extent reasonable due to the nature of the participant involvement, a summary of how AESO addressed those issues raised by participants should be included in the need application.

6.2 AESO Needs Identification Application Schedule

Please note that only Schedule 1 is required for AESO Need Applications.

6.3 AESO Needs Identification Application Attachments

The EAS process requires AESO or the delegated TFO to upload the application containing Information requirements grouped in the following tables.

Application	Section 11(3) and Section 11(4) of the *Regulation*, and Requirements No. (NID1) to (NID13).

7 Transmission Line / Substation Applications

If you are applying to construct or alter a substation or transmission line (pursuant to Sections 14 and 15 of the *HEE Act*), you must include the following background and technical requirements outlined below. Fill out the Directive 028 – Transmission Line and/or Substation Application Schedule, and upload the required Transmission Line and/or Substation Attachments

7.1 Information Requirements

7.1.1 Legislation

TS1) Identify the sections of the *HEE Act* under which the application is made.

TS2) Identify any other acts (e.g., *EU Act, Environmental Protection and Enhancement Act*) that may affect the proposed project.

TS3) State the approvals that you are applying for from the EUB.

TS4) Where existing facilities are being altered, state the existing EUB Board orders (i.e., approvals, permits, and licences) for each facility.

TS5) Provide details and outcome of your consultation with local jurisdictions (e.g., municipal districts, counties).

TS6) Provide a list of companies that may be affected by your project, confirm that these companies have no concerns regarding your application, and indicate which other agreements are necessary to carry out your project.

7.1.2 Project Description

TS7) Provide a description of the proposed project.

TS8) Provide a copy of the AESO Direct Assignment letter pursuant to Section 35 of the *EU Act*.

TS9) Give the dates by which both the approval and the proposed facilities are required; state the ramifications if they are not available at that time.

7.1.3 Alternative Solutions

TS10) Describe any transmission line routing alternatives to the proposal and compare the relative impacts (environmental, social, and economic) of these alternatives with the proposal.

7.1.4 Participant Involvement Program

TS11) Describe the participant involvement program that you have conducted (See Appendix A – Participant Involvement Program Requirements). The public notification should include all occupants, residents, and landowners within 800 m measured from the edge of the proposed right of way for the transmission line and/or proposed substation site boundary. The personal consultation should include all occupants, residents, and landowners on or directly adjacent to the proposed right of way for the transmission line and/or proposed substation site location.

TS12) List all occupants, residents, and landowners, as well as other interested parties, that you contacted as part of your participant involvement program.

TS13) Supply a list of mailing addresses, with corresponding land locations and 2 sets of printed mailing labels of those parties mentioned in TS12 above.

TS14) Identify any persons who expressed concerns about the project and the specifics of their concerns.

TS15) Summarize discussions held with potentially directly and adversely affected persons.

TS16) If potentially directly and adversely affected persons raised any concerns, describe how you dealt with or will deal with them.

TS17) For those potentially directly and adversely affected persons identified above, include a confirmation of resolution of the concerns, if applicable.

7.1.5 General Operating Information

TS18) Describe the design and operating voltage of the transmission line and/or substations.

TS19) Provide the continuous and maximum ratings of the transmission line for the various operating conditions as stipulated by AESO and the expected transmission line losses. Describe changes, if any, proposed by the TFO.

TS20) If AESO requires the TFO, who has been directly assigned for the proposed project, to determine the choice of conductors, describe conductor size and arrangement selected and the basis for conductor selection.

TS21) Describe the proposed transmission line structure type, including height and spacing; if more than one type of structure is proposed, state where each type will be used.

TS22) State the right-of-way width and the basis for determining the width.

TS23) Describe all major substation equipment being applied for and list the final major equipment in the substation.

TS24) Describe the switching and protection features of the proposed transmission facilities.

TS25) Describe the electrical interaction of proposed lines with other facilities, such as pipelines, telephone, radio, and television transmission facilities, and other surface structures.

TS26) Describe the changes to existing facilities that would be required to accommodate the proposed facilities.

7.1.6 Maps, Drawings, and Other Documents

TS27) Provide a legible map defining the study area and state the reasons for the chosen area.

TS28) Provide legible maps and drawings of the proposed facilities showing

- the preferred transmission line route and any alternative routes;

- right-of-way widths;
- location of the transmission line on the right-of-way;
- location of the transmission line relative to property lines; and
- mile (kilometre) points along each transmission line route.

TS29) Provide legible maps and/or air photo mosaics upon which the proposed transmission line route or routes have been imposed and showing the residences, landowner names, and major land-use and resource features (e.g., vegetation, topography, soil type, existing land use, existing rights-of-way, existing or potential archaeological sites, and superficial and mineable resources).

TS30) Provide a legible map of the project area suitable for use in a public notice.

TS31) Provide an electric single-line diagram or switching map showing new facilities in place in the system. In the case of a substation, provide an electric single-line diagram and a substation layout, including major items of equipment and the fenced boundaries of the station.

7.1.7 Construction Schedule

TS32) Discuss the construction schedule, equipment and method of construction, and method of eventual right-of-way maintenance.

7.1.8 Environmental Information

Approval from Alberta Environment (AENV) may be required. You should contact AENV directly to ascertain if such is the case. All applications must confirm your intent to comply with AENV's *Guide for Transmission Lines*, pursuant to the *Environmental Protection and Enhancement Act* and *Regulations*.

Each application must include environmental information, with the level of detail appropriate to the impacts created by the project. The EUB judges the detail on a project-by-project basis. As a general rule, the EUB expects applications for higher-voltage transmission lines of significant length to be more detailed. In some instances, an environmental impact assessment (EIA) may be required. If the AESO have provided information in the related NID as per NID12[2], the TFO should expand on that information by way of route site specific information for the applied-for route and alternatives, if any. Notwithstanding the above mentioned NID12 information, the information listed in TS33 through TS38 below must be provided.

TS33) For right-of-way clearing and maintenance, provide a copy of the Conservation and Reclamation Plan, as required by AENV (if applicable).

TS34) Landscape plan—indicate those areas that require screening or landscaping, and the measures to be used.

TS35) Aesthetics—indicate those areas that have been identified as significant viewpoints, and describe the measures proposed to minimize the impact of towers and rights-of-way within the view area.

[2] Page 29 of this directive

TS36) Tower location—indicate the flexibility available in locating towers to reduce the inconvenience to residents and their day-to-day activities.

TS37) Archaeological and historical impacts—confirm that consultation has taken place with Alberta Community Development. If a historical and/or archaeological impact assessment is required, briefly describe any historical or archaeological sites and parks along the routes, with emphasis on major features close to or traversed by the route.

TS38) For proposed route(s) and possible alternatives that will result in significant environmental impacts:

i) Describe the environmental evaluation of the study area, identifying the environmental factors leading to the selection of the proposed route(s).

ii) Show the major land-use and resource features (e.g., agriculture, residences, recreation, forestry, fish, wildlife, and visual and sensitive areas) for each route in a table in appropriate units (by kilometre, total number, etc.). Provide supporting written discussion showing the significance of impacts upon each major land-use and resource feature for each route.

iii) Present an overall comparison of the environmental impacts and costs associated with the alternative routes and proposed route and identify the environmentally preferred route.

iv) Summarize any discussions held with municipalities to ensure compatibility of the proposed facility with various municipal services if a proposed transmission line passes through or immediately adjacent to an urban centre.

7.1.9 Economic Assessment

TS39) Provide a detailed cost breakdown of all alternatives on a common basis with an accuracy tolerance within plus 20% minus 10%. This cost breakdown must be provided in the format shown in Appendix B1. Where identifiable, include costs to be borne by persons other than the applicant and the applicant's customer(s) in the comparison. This information requirement may not be applicable to merchant line applications.

7.2 Transmission Line/Substation Application Schedules

MENU Print Save Sched 1 Close Help

Alberta Energy and Utilities Board

Directive 028
Transmission Line Application

DAY MONTH YEAR
12-AUG-2004

APPLICANT'S FILE NUMBER
CAP Screen Shoot

The applicant certifies that the information provided here and in all supporting documentation is correct and in accordance with all regulatory requirements or as directed by the Alberta Energy and Utilities Board.

Submission Status Incomplete Submission Id 26351 Creation Date 4/27/2005 11:11

4. TRANSMISSION LINE Help

1. Provide the name(s) of all other companies having ownership in the project, details of their incorporation, and the share in the project that each would have.

Clear

Company Name: Percentage:

Details:

Add

View	Delete	Company Name	Percentage	Details

View Delete

Total Other Ownership: %

2. Have you conducted a public notification and involvement program? YES NO

If No, explain:

3. Are there outstanding public or industry objections and/or concerns? YES NO

4. Provide Electric Facility ID Number(s):

5. Provide legal descriptions, including latitudes and longitudes of start and end points of the transmission line. (Provide latitude and longitude coordinates in decimal degrees)

Start Point of Transmission Line

Lsd	Sec	Twp	Rge	Mer	Lat (NAD 83)	Long (NAD 83)

End Point of Transmission Line

Lsd	Sec	Twp	Rge	Mer	Lat (NAD 83)	Long (NAD 83)

If you have any questions or comments, please contact the EAS Administrator .

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MENU | Print | Save | Sched 1 | Close | Help

Alberta Energy and Utilities Board

Directive 028
Substation Application

DAY MONTH YEAR
12-AUG-2004

APPLICANT'S FILE NUMBER
CAP Screen Shoot

The applicant certifies that the information provided here and in all supporting documentation is correct and in accordance with all regulatory requirements or as directed by the Alberta Energy and Utilities Board.

Submission Status: Incomplete | Submission Id: 26351 | Creation Date: 4/27/2005 11:1

4. SUBSTATION

Help

1. Provide the name(s) of all other companies having ownership in the project, details of their incorporation, and the share in the project that each would have.

Clear

Company Name: | Percentage:

Details:

Add

View	Delete	Company Name	Percentage	Details

View | Delete

Total Other Ownership: %

2. Have you conducted a public notification and involvement program? (see Guide 56, Section 2 - Participant Involvement) YES ○ NO ○

If No, explain:

3. Are there outstanding public or industry objections and/or concerns? YES ○ NO ○

4. Provide Electric Facility ID Number(s):

5. Provide legal description, latitude and longitude of the substation. (Provide latitude and longitude coordinates in decimal degrees.)

Lsd	Sec	Twp	Rge	Mer	Lat (NAD 83)	Long (NAD 83)

If you have any questions or comments, please contact the EAS Administrator .

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Transmission Line and Substation Application Schedule – Guide

Please note that you must fill out one Transmission Line Application Schedule for each transmission line you are applying for. As well, you must fill out one Substation Application Schedule for each substation you are applying for.

1. Provide the names of all **other** companies having ownership in the project, details of their incorporation, and the share in the project that each would have. (Note: Do not answer this question if you are the sole owner of the project).

2. Have you conducted a participant involvement program? If you answer "No" you must provide reasons. If you answer "Yes", ensure that you provide details about your program in the Participant Involvement Program attachment.

3. Are there outstanding public or industry objections and/or concerns?

4. Provide Electric Facility ID Number(s)

5. Provide the legal description, including latitude and longitude of start and end points of the transmission line or the location of the substation, whichever is the case.

7.3 Transmission Line Application Attachments

The EAS process requires an applicant for permit to build and licence to operate transmission facilities to upload each section as a separate attachment. Information requirements for each attachment are combinations of those described in previous sections and grouped in the following tables:

ATTACHMENTS	INFORMATION REQUIREMENTS
Application	Requirements No. (TS1), (TS2), (TS3), (TS4), (TS5), (TS6), (TS7), (TS9), (TS10), (TS18), (TS19), (TS20), (TS21), (TS22), (TS24), (TS25), (TS26), (TS32), and (TS39)
AESO Direct Assign Letter	Requirement No. (TS8)
Air Photo Mosaics	Requirement No. (TS29)
Conservation & reclamation Plan	Requirement No. (TS33)
Project Area Map	Requirement No. (TS30)
Route Map	Requirement No. (TS28)
Transmission Line Map	Requirement No. (TS27)
Participant Involvement Program	Requirements No. (TS11), (TS12), (TS13), (TS14), (TS15), (TS16), and (TS17)
Environmental Impact	Requirements No. (TS34), (TS35), (TS36), (TS37), (TS38)

7.4 Substation Application Attachments

After completing a Substation Application Schedule, the applicant must upload the following attachments containing the information as indicated below

ATTACHMENT	INFORMATION REQUIREMENTS
Application	Requirements No. (TS1), (TS2), (TS3), (TS4), (TS5), (TS6), (TS7), (TS9), (TS18), (TS23), (TS24), (TS32), (TS39)
AESO Direct Assign Letter	Requirement No. (TS8)
Project Area Map	Requirements No. (TS27), (TS30)
Substation Single-line Diagram	Requirement No. (TS31)
Participant Involvement Program	Requirements No. (TS11), (TS12), (TS13), (TS14), (TS15), (TS16), and (TS17)
Environmental Impact	Requirement No. (TS34), (TS35), (TS37)

8 Industrial System Designation (ISD) Applications

If you are applying for an ISD, you must include the following background and technical information. These information requirements are derived from Section 4 of the *HEE Act*. Be sure to attach a covering Directive 028 Schedule 1 with your application.

8.1 ISD Information Requirements

8.1.1 Legislation

ISD1) Identify the sections of the *HEE Act* under which the application is made.

ISD2) State the approvals that you are applying for from the EUB.

ISD3) Provide a list of existing approvals for facilities directly affected by this project, if any.

ISD4) Provide a list of companies that may be affected by your project, confirm that these companies have no concerns regarding your application, and indicate which other agreements are necessary to carry out your project.

8.1.2 Industrial System Description

ISD5) Provide a detailed description of the overall industrial process, and include a list of the companies that own or operate different aspects of the industrial process.

ISD6) Explain how the industrial operations process a feedstock, produce a primary product, or manufacture a product. Describe the integration of the industrial system, showing how the output of each component within the industrial operation is used by that operation and is necessary to constitute its final products.

ISD7) Demonstrate that there is a high degree of integration of the electric system with one or more industrial operations that the electric system forms part of and serves.

ISD8) Explain the degree of integration of the management of the components and processes of the industrial operations.

ISD9) Provide block diagrams showing electrical, natural gas, steam, water, and feedstock flows between the different blocks representing processes. Appropriate units of measurement should indicate flows (for example, megawatts for electric flows, cubic metres per second for gas and water flows). Also include in these diagrams the volumes consumed or produced by each process block.

ISD10) Provide a complete list of all electric facilities and equipment of 25 kV or more to be included in the Industrial System Designation.

ISD11) Provide an electrical single-line diagram of the entire industrial complex. This diagram should clearly show existing facilities, future facilities, and their ownership.

ISD12) Verify that the electric system includes at least one generating unit that has substantial capacity in comparison with the on-site load and is located on the property of one or more industrial operations it is intended to serve.

ISD13) Explain how the designation supports both a) the development of the economical supply of generation to meet the requirements of integrated industrial processes and b) the efficient exchange with the interconnected electric system of electric energy that is in excess of the industrial system's own requirements.

ISD14) Demonstrate, by way of an economic comparison, that the internal supply through on-site generation is the most economic source of power for the industrial complex. For example, if the industrial complex uses cogeneration to produce electric and thermal energy, you should provide a comparison of the costs of the internal supply of electricity and process heat with the alternative of contracting electrical supply from the Alberta Interconnected Electric System and installing in situ heat exchangers or boilers to satisfy the thermal requirements of the industrial process.

ISD15) Explain how your proposal meets the principle that the designation supports the location of generation and consumption so that the efficiency of the interconnected electric system is improved, including improved voltage stability and reduction of losses and congestion on transmission. Elaborate on how your application achieves this principle and provide your assessment of losses and congestion on transmission lines due to the electric power that the industrial complex would supply to the Alberta Interconnected Electric System. The assessment should also take into account other existing generation and generation under construction.

ISD16) Provide a thermal energy balance to demonstrate that there is significant and sustained increase in efficiency in the process of the industrial operation or in the production and consumption of electric energy by the industrial operation as a result of the integration of the electric system with the industrial operations the electric system forms part of and serves.

ISD17) Demonstrate that the designation does not facilitate the development of independent electric systems that attempt to avoid costs associated with the interconnected electric system, and does not facilitate uneconomical bypass of the interconnected electric system.

ISD18) Demonstrate that the designation would not result in duplication of the interconnected electric system where it is more economical to use the transmission facilities or electric distribution system owned by persons in whose service area the industrial system is or will be located.

ISD19) Demonstrate that there is significant investment in either the expansion or extension of the industrial operations processes and the development of the electricity supply.

ISD20) If your industrial operation extends beyond the contiguous property of the industrial complex, provide information to satisfy the EUB that the overall cost of providing the owner's own distribution or transmission facilities to interconnect the integral parts of the industrial operation is equal to or less than the tariffs applicable for distribution or transmission in the service area where the industrial operation is located.

8.1.3 Participant Involvement Program

ISD21) Describe the participant involvement program that you have conducted (See Appendix A – Participant Involvement Program Requirements).

ISD22) List all stakeholders that you contacted as part of your participant involvement program.

ISD23) Supply a list of mailing addresses, with corresponding land locations and 2 sets of printed mailing labels of those parties mentioned in ISD22 above.

ISD24) Identify any persons who expressed concerns about the application and the specifics of their concerns.

ISD25) Summarize discussions held with potentially directly and adversely affected persons.

ISD26) If potentially directly and adversely affected persons raised any concerns, describe how you dealt with or will deal with them.

ISD27) For those potentially directly and adversely affected persons identified above, include a confirmation of resolution of the concerns, if applicable.

8.1.4 Maps, Drawings, and Other Documents

ISD28) Provide a legible plant site drawing showing all major components of the industrial operation.

ISD29) Provide a legible map showing the location of major electric facilities, such as power plants, transmission lines, and substations.

ISD30) Provide a legible map of the project area suitable for use in public notice.

8.2 ISD Application Schedule

Please note that only Schedule 1 is required for ISD Applications.

8.3 ISD Application Attachments

The EAS process requires an applicant for an Industrial System Designation to upload each section as a separate attachment. Information requirements for each attachment are combinations of those described in previous sections and grouped in the following table.

ATTACHEMENT	INFORMATION RQUIREMENTS
Application	Requirements No. (ISD1), (ISD2), (ISD3), (ISD4), (ISD5), (ISD6), (ISD7), (ISD8), (ISD10), (ISD12), (ISD13), (ISD14), (ISD15), (ISD16), (ISD17), (ISD18), (ISD19), (ISD20), (ISD21), (ISD22), (ISD23), (ISD24), (ISD25), (ISD26), (ISD27), (ISD28), (ISD29), and (ISD30).
ISD Single-line Diagram	Requirement No. (ISD11)
Process Flow Diagram	Requirement No. (ISD9)

APPENDIX A Participant Involvement Program Requirements

Purpose of the Requirements

These guidelines and minimum expectations are to assist you in carrying out your participant involvement program prior to submitting an electric facility application. The EUB cannot predetermine the precise extent and scope of your program, because every application is unique and each project may present circumstances that must be dealt with on an individual basis.

The EUB expects you, as the proponent, to assume responsibilities for involving the public and to be aware of circumstances or applications where your participant involvement program should exceed the requirements and recommendations.

These guidelines apply to all new facilities and all modifications to existing facilities.

Electric Facility Development: A Cooperative Venture

The EUB considers it paramount that effective communication takes place among industry, government, and the public so that concerns may be raised, properly addressed, and if possible, resolved. All persons whose rights may be directly and adversely affected by a proposed development must be informed of the application and have an opportunity to voice their concerns and to be heard.

Before You Submit an Application

"Participant involvement" is a term encompassing all aspects of public, local authority, and industry interactions and communications. It is recognized that other groups may also have a stake in electric facility developments.

The development and implementation of the participant involvement program must occur prior to the filing of an application with the EUB. This includes

i) the distribution of a project-specific information package,

ii) responding to questions and concerns, and

iii) discussing options, alternatives, and mitigating measures.

Applicants are required to develop an effective participant involvement program that includes persons whose rights may be directly and adversely affected by the nature and extent of a proposed application. Applicants are also expected to be sensitive to the timing constraints on the public (e.g., planting, harvesting, calving seasons, and statutory holidays).

The public is strongly encouraged to participate in ongoing issue identification, problem solving, and planning with respect to local electric facility developments. Early involvement in informal discussions with an applicant may lead to greater influence on project planning and mitigation of impacts. The applicant is expected to be proactive and ensure that technical information is conveyed in a manner understandable to the public. The project should be discussed with the widest possible audience as early in the planning stages as practical.

The applicant must make all reasonable attempts to contact persons, provide a written description of the project, discuss the project, and address any questions and concerns. If the applicant is unable to contact a party, you should provide sufficient documentation to illustrate your attempts to establish contact.

The development and creation of synergy groups at an early stage of the participant involvement program, especially in highly developed areas, will assist in fostering a collective and amenable approach to transmission line developments in the area.

The applicant must indicate any outstanding objections and/or concerns that they are aware of and must attach a written summary of the outstanding issues when submitting an application. If the issues are not resolved, the EUB may hold a hearing to consider the application.

The applicant must always close the participant involvement loop, even if the application is withdrawn. This means that all persons included in the participant involvement program must continue to be included in all correspondence and information updates during the development, implementation, and outcome of the proposed project. The applicant must advise all persons (public and industry) if it has decided not to proceed with the proposed project after having initiated a participant involvement program.

If the scope of the project changes, such as a change to the surface location, the applicant must notify all persons included in the initial consultation program of the proposed change. If the project change results in the inclusion of new participants, the applicant must meet all participant involvement program requirements in regard to the new participants as well.

The applicant must provide notification to all persons (public, industry, and local authorities as well as the EUB) when a change in circumstances does not allow previous commitments to be met.

Should dispute arise, the EUB expects the parties to discuss the issues and options for resolution and encourages the use of third-party mediators. EUB staff, if requested, can assist in explaining EUB requirements and processes and in facilitation. Additional information in this regard may be found on the EUB's Web site under the Appropriate Dispute Resolution (ADR) initiative.

Planning a Participant Involvement Program

It is an applicant's responsibility to assess the area beyond the specified minimum to determine if the radius of investigation recommended should be expanded. It may be necessary to increase the radius to include others who have expressed an interest in development in the area.

Local authorities and Alberta Sustainable Resource Development (ASRD) play an important part in the plan for orderly land use and should be involved at an early stage in planning a transmission line or substation development and participant involvement program. Additionally, local authorities, EUB Field Centre staff, and the applicant's previous knowledge of the area may help identify needs in the community.

Who to Include

For transmission line and substation developments, the applicant must provide public notification to all occupants, residents, and landowners within 800 m measured from the edge of the proposed right of way for the transmission line and/or the proposed substation site boundary. The applicant must provide personal consultation to all occupants, residents, and landowners on or directly adjacent to the proposed right of way for the transmission line and/or proposed substation site location.

In an urban setting, the applicant must provide public notification and personal consultation to all occupants, residents, and landowners within the first row of houses facing the proposed development and hold at least one information session or public open house meeting in communities that would be traversed by the proposed development.

For power plant developments, the applicant must provide public notification to all occupants, residents, and landowners within 2000 m measured from the edge of the proposed power plant site boundary. The applicant must provide personal consultation to all occupants, residents, and landowners within 800 m measured from the edge of the proposed power plant site boundary. For major power plant applications, if

there are populated areas just outside the 2000 m limit, applicants should consider including those areas in the public notification.

For need applications, AESO must provide public notification to all occupants, residents, and landowners within the areas where facilities could be required to implement AESO's preferred option and applied-for alternatives. The applicant must advertise the proposed need application in local newspapers in the area where facilities could be required to implement AESO's preferred and applied-for alternatives. Where it considers it to be an appropriate component, AESO should hold open houses or other forums where information can be provided to members of the public who may be directly affected by an application for facilities to implement AESO's preferred option and applied-for alternative solutions.

The applicant must allow persons notified or consulted a minimum of 14 calendar days to receive, consider, and respond to notification of the proposed development. The applicant is expected to document commitments made and have a process in place to monitor and follow up on commitments.

If the proposed development is part of a larger project, the applicant is expected to discuss the entire project and explain how it complements other development in the area.

During the planning of its participant involvement program, the applicant should assess its need to reach the broader public and may determine that an information session or public open house meeting is required. When holding such sessions, the applicant must disclose the same project-specific information as it would to those involved in personal consultation and notification. However, information sessions or public open houses may not be a substitute for meeting minimum consultation requirements.

What Information to Disclose

Information packages must be developed and distributed to all parties included in the participant involvement program. The applicant's project-specific information package must provide the specific details of the proposed project development. The applicant must use appropriate language and terminology in the written materials so that the participants can clearly understand the details of the proposed development and the impact(s) it may have upon them.

The following details must be included in the applicant's project-specific information package:

i) applicant name and contact numbers for further information,

ii) location of proposed facilities, including power plant, transmission line and/or substation development, including site specific map,

iii) need for the proposed transmission facilities and explanation of how it fits with existing and future plans,

iv) discussion of the potential restrictions regarding developing lands adjacent to the proposed development, such as setbacks,

v) description of proposed on-site equipment,

vi) proposed project schedule for EUB application, construction and start-up, and

vii) EUB brochure of application process.

The applicant is expected to include any other information that would assist the participant in understanding the proposed development.

Personal Consultation – Facility Applications

Personal consultation is intended to inform parties where rights may be directly and adversely affected by the nature and extent of the proposed application. Questions raised during the discussion of the proposed development should alert the applicant to potential concerns/objections.

The applicant must conduct face-to-face visits or telephone conversations with occupants, residents, and landowners of land that a) would be on or directly adjacent to the right of way for the proposed transmission line and/or proposed substation site location or b) would be within 800 m measured from the edge of the proposed power plant site boundary. Where there is more than one landowner or occupant at an address, a face-to-face visit or telephone conversation with a responsible adult at that address will normally be sufficient, unless a request is made to meet with more than one landowner or occupant.

A company representative with full knowledge of the overall plans and direction of future development options must be available to answer questions either in person or by telephone. The applicant must use appropriate language and terminology both in conversations and written materials so that the persons consulted can clearly understand the details of the proposed development and the impact it may have upon them. The applicant must provide a copy of its project-specific information packages to those persons described in the "Who to Include" section above. The required information packages may be distributed during the personal consultation meeting or forwarded later as follow-up to the personal consultation phone call/meeting. Packages may be forwarded by courier, mail, fax, e-mail, or other means as agreed upon by the applicant and persons consulted.

If the person does not want a copy of the required information package(s), the applicant must document the refusal for audit purposes. The applicant must keep a log of the dates that personal consultation occurred, when materials were distributed/received, and to whom.

The applicant is accountable for the outcomes of personal consultation completed on its behalf by contracted personnel. Therefore, the applicant must ensure that individuals conducting personal consultation on its behalf:

i) possess a sound understanding of regulatory requirements and expectations for participant involvement, and

ii) use appropriate language and terminology in the written materials so that the participants can clearly understand the details of the proposed development and the impact it may have upon them.

Public Notification – Facility Applications

Notification differs from personal consultation in that the initial communication may take place through written correspondence rather than face to face or in telephone conversations.

The applicant must notify all occupants, residents, and landowners within 800 m measured from the edge of the right of way for a proposed transmission line development or 800 m measured from the boundary of the proposed substation. Distribution of project-specific information packages to postal code addresses is sufficient to satisfy this initial communication requirement.

The applicant must notify all occupants, residents and landowners within a 2000 m radius of a proposed power plant development. If there are populated areas just outside the 2000 m limit, the applicant should consider including those areas in the public notification. Distribution of project-specific information packages to postal code addresses is sufficient to satisfy this initial communication requirement.

The applicant must allow a minimum of 14 calendar days for the persons consulted to receive, consider, and respond to the notification and be prepared to discuss the project as necessary.

The applicant must use appropriate language and terminology in conversations and written materials so that the participants can clearly understand the details of the proposed development and the impact it may have upon them.

The applicant is accountable for the outcome of notification completed on its behalf by contracted personnel. Therefore, the applicant must ensure that individuals conducting notification on its behalf:

i) possess a sound understanding of regulatory requirements and expectations for participant involvement, and

ii) use appropriate language and terminology in the written materials so that the participants can clearly understand the details of the proposed development and the impact it may have upon them.

Public Notification – Need Applications

The applicant must notify all occupants, residents, and landowners in areas where facilities could be installed to implement AESO's preferred option and applied-for alternative solutions. The applicant must also notify industry stakeholders including all groups that participate in electric industry proceedings. Distribution of project-specific information packages to postal code addresses is sufficient to satisfy this initial communication requirement.

The applicant must advertise the proposed need application in local newspapers in the area where facilities could be installed to implement the preferred alternative or any other alternative solution in the need application. The advertisement should include a map of the area, a telephone number to contact for additional information, and a website location where the need application may be downloaded.

The applicant is not required to initiate consultation with occupants, residents, or landowners but, where it considers it to be an appropriate component, AESO should hold open houses or other forums where information can be provided to members of the public who may be directly affected by an application for facilities to implement AESO's preferred option and applied-for alternative solutions. In required cases, AESO should hold additional open houses or forums to address any public issues or concerns.

The applicant must allow a minimum of 14 calendar days for the persons notified to receive, consider, and respond to the notification and be prepared to discuss the project as necessary.

The applicant must use appropriate language and terminology in conversations and written materials so that the participants can clearly understand the details of the proposed development and the impact it may have upon them.

The applicant is accountable for the outcome of notification completed on its behalf by contracted personnel. Therefore, the applicant must ensure that individuals conducting notification on its behalf:

i) possess a sound understanding of requirements and expectations for participant involvement, and

ii) use appropriate language and terminology in the written materials so that the participants can clearly understand the details of the proposed development and the impact it may have upon them

Extended Absences

In some instances occupants, residents, and landowners may be away for extended periods, such as on vacation, or they may reside out of the province.

When the applicant must personally consult with participants and is unable to do so, the applicant is expected to use courier or registered mail to send letters and information packages to the address indicated on the most up-to-date land title documents.

If the applicant is unable to fulfill all participant involvement requirements, it must demonstrate the efforts made to contact all necessary participants.

Documenting the Participant Involvement Program

It is in the applicant's best interest to understand the audit requirements for participant involvement. The applicant should develop an audit documentation package early and build it throughout the process. The applicant must retain communication logs, registered mail/courier tracking, and personal consultation and notification documents for audit purposes. The applicant must retain documentation of potential mitigations for concerns/objections that were received through the notification and consultation process prior to filing an application.

APPENDIX B1 Cost Breakdown Formats – Requirements TS39

Accuracy: +20/-10 %

	System Portion	Customer Portion	TOTAL	Capital Maintenance
Transmission Lines Costs				
Material	$ -	$ -	$ -	$ -
Labour	$ -	$ -	$ -	$ -
Total-Transmission Line	$ -	$ -	$ -	$ -
Substation Facilities Costs				
Material	$ -	$ -	$ -	$ -
Labour	$ -	$ -	$ -	$ -
Total-Substations	$ -	$ -	$ -	$ -
Telecommunication Costs				
Material	$ -	$ -	$ -	$ -
Labour	$ -	$ -	$ -	$ -
Total-Telecommunication	$ -	$ -	$ -	$ -
Owner Costs				
Proposal to Provide Service	$ -	$ -	$ -	$ -
Facility Applications	$ -	$ -	$ -	$ -
Right of Way Costs	$ -	$ -	$ -	$ -
Total-Owners Costs	$ -	$ -	$ -	$ -
Distributed Costs				
Procurement	$ -	$ -	$ -	$ -
Project Management	$ -	$ -	$ -	$ -
Construction Management	$ -	$ -	$ -	$ -
Total-Distributed Costs	$ -	$ -	$ -	$ -
Total Direct Costs	$ -	$ -	$ -	$ -
Salvage Costs				
Transmission Line & Substation Labour, Land Remediation & Reclamation	$ -	$ -	$ -	$ -
Total-Salvage	$ -	$ -	$ -	$ -
Other Costs				
AFUDC	$ -	$ -	$ -	$ -
E&S	$ -	$ -	$ -	$ -
Total-Other Costs	$ -	$ -	$ -	$ -
Total In-Direct Costs	$ -	$ -	$ -	$ -
TOTAL PROJECT COSTS	$ -	$ -	$ -	$ -

APPENDIX B2 Cost Breakdown Formats – Requirements NID10 and NID11

Accuracy: +/-30 %

	System Portion	Customer Portion	TOTAL	Capital Maintenance
Transmission Line	$ -	$ -	$ -	$ -
Substation Facilities	$ -	$ -	$ -	$ -
Telecommuncation	$ -	$ -	$ -	$ -
Total-Facility Costs	$ -	$ -	$ -	$ -
Owner Costs	$ -	$ -	$ -	$ -
Distributed Costs	$ -	$ -	$ -	$ -
Total-Owners and Dist. Cost.	$ -	$ -	$ -	$ -
Total-Direct Costs	$ -	$ -	$ -	$ -
Salvage Costs	$ -	$ -	$ -	$ -
E&S	$ -	$ -	$ -	$ -
AFUDC	$ -	$ -	$ -	$ -
Total-Indirect Costs	$ -	$ -	$ -	$ -
TOTAL PROJECT COSTS	$ -	$ -	$ -	$ -